View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by Elsevier - Publisher Connector

LETTERS TO THE EDITOR

Regarding "Growth predictors and prognosis of small abdominal aortic aneurysms"

The well-designed study by Schlösser et al showed that statins appear to be associated with slower abdominal aortic aneurysm (AAA) expansion rates.[1] During a median surveillance period of 3.3 years (range: 0.5 to 11 years), a mean AAA expansion rate of 2.5 ± 3.2 mm/year was reported.[1] Despite the wide variation in AAA growth rates between individuals (standard deviation, 3.2 mm/year, range: from −7.8 to 19 mm/year), statin use was associated with slower AAA expansion rates (mean difference between statin users and non-users: 1.21 mm/year; 95% confidence interval, 0.19 to 2.24 mm/year; $P = .02$).[1] As the authors themselves also supported,[1] these results are in accordance with other recent studies showing that statins are associated with reduced AAA expansion rates.[2,3]

A possible drawback is that all these reports[1-3] are observational studies; as the authors themselves conclude, "given the inherent limitations of observational cohort studies, the apparent slowing effect of statins on AAA growth rate needs ideally confirmation by a randomized placebo-controlled trial. However, as the majority of the patients with an AAA are nowadays treated with statins, this would hardly be possible in a placebo-controlled design."[1] Besides this, a fact that would render difficult (if not impossible) the design of such a study, is ethical limitations; given the uniform positive results from observational studies,[1-3] there would probably be ethical restrictions in designing randomized placebo-controlled trials to confirm the beneficial effects of statins on AAA expansion rates. For this reason, the effect of statins on AAA growth rates may never be tested in placebo-controlled studies. However, even if statins do not attenuate AAA expansion rates (as seen in observational studies),[1-3] there is evidence suggesting that routine statin treatment is associated with improved perioperative and long-term mortality and morbidity rates should these patients eventually undergo surgery (or endovascular AAA repair).[4,5] For this reason alone, the conservative management of patients with small AAAs should probably include routine statin use.

Kosmas I. Paraskevas, MD, FASA

Department of Vascular Surgery
"Red Cross" Hospital
Athens, Greece

REFERENCES

1. Schlösser FJ, Tangelder MJ, Verhagen HJ, van der Heijdern GJ, Muhs BE, van der Graaf Y, et al; SMART study group. Growth predictors and prognosis of small abdominal aortic aneurysms. J Vasc Surg 2008;47:1127-33.
2. Sukhija R, Aronow WS, Sandhu R, Kakar P, Babu S. Mortality and size of abdominal aortic aneurysms at long-term follow-up of patients not treated surgically and treated with and without statins. Am J Cardiol 2006;97:279-80.
3. Schouten O, van Laanen JH, Boersma E, Vidakovic R, Feringa HH, Dunkelgrun M, et al. Statins are associated with a reduced infrarenal abdominal aortic aneurysm growth. Eur J Vasc Endovasc Surg 2006;32:21-6.
4. Paraskevas KI, Liapis CD, Hamilton G, Mikhailidis DP. Can statins reduce perioperative and morbidity and mortality in patients undergoing non-cardiac vascular surgery? Eur J Vasc Endovasc Surg 2006;32:286-93.
5. Paraskevas KI, Liapis CD, Hamilton G, Mikhailidis DP. Are statins an option in the management of abdominal aortic aneurysms? Vasc Endovascular Surg 2008;42:128-34.

doi:10.1016/j.jvs.2008.06.047

Reply

We would like to thank Dr Paraskevas for the kind response to our article on growth predictors and prognosis of small abdominal aortic aneurysms (AAA). We agree with the author's opinion that a placebo-controlled randomized trial in this setting cannot be justified anymore. Moreover, given the existing evidence of beneficial effects of statins in patients with vascular diseases, including AAA, and the still existing medical undertreatment of these patients, we underscore that statin treatment should be standard in each patient without contraindication.

A slower expansion of the aneurysm diameter is likely to benefit the patient because the risk of rupture will be reduced and surgery can be prevented in some patients because the diameter of the aneurysm does not cross the threshold for surgery.[1] In addition to potential benefits of statins in survival of patients after surgical exclusion of AAA, statins may preserve the renal function after suprarenal aortic cross clamping.[2]

The mechanism of statins in reducing AAA growth and morbidity and mortality after surgery is not yet understood, and differences between types of statins have been described.[3] To further increase the prognosis of patients with small abdominal aortic aneurysms, future randomized trials may determine if various statin therapies are associated with different reductions in growth rates and clinical outcomes in patients with AAA.

Felix J.V. Schlösser, MD
Marco J.D. Tangelder, MD, PhD
Frans L. Moll, MD, PhD

University Medical Center Utrecht
Utrecht, The Netherlands

REFERENCES

1. Mosorin M, Niemela E, Heikkinen J, Lahtinen J, Tiozzo V, Satta J, et al. The use of statins and fate of small abdominal aortic aneurysms. Interact Cardiovasc Thorac Surg 2008 [Epub ahead of print].
2. Schouten O, Kok NF, Boersma E, Bax JJ, Feringa HH, Vidakovic R, et al. Effects of statins on renal function after aortic cross clamping during major vascular surgery. Am J Cardiol 2006;97:1383-5.
3. Schouten O, Hoeks SE, Welten GM, Davignon J, Kastelein JJ, Vidakovic R, et al. Effect of statin withdrawal on frequency of cardiac events after vascular surgery. Am J Cardiol 2007;100:316-20.

doi:10.1016/j.jvs.2008.06.046

Regarding "Delayed presentation of aortic injury by pedicle screws: Report of two cases and review of the literature"

We read with great interest the recent article by Kakkos and Shepard,[1] which is a timely reminder of the vascular implications of misplaced thoracic pedicle screws now widely used in spine surgery.

Thoracic pedicle screws have numerous advantages over hooks, including stronger three column fixation, improved curve correction both in the coronal and axial planes, and the potential to save fusion levels. However, misplacement rates vary from a low of